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In re Application of:
Michael T. White *et al.*

Examiner: F. R. Zeender

Application No.: 09/469,633

Group Art Unit: 3627

Filed: December 22, 1999

For: ENHANCED SECURITY FEATURES FOR AN AUTOMATED ORDER FULFILLMENT SYSTEM

Date: May 26, 2004

APPEAL BRIEF

The Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313

Sir:

Pursuant to the Notice of Appeal filed in the above-identified application on March 26, 2004, and in accordance with 37 C.F.R. § 1.192, Appellants respectfully submit the following Appeal Brief.

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REAL PARTY IN INTEREST

International Business Machines Corporation, the assignee of the entire interest of the above-identified patent application (as evidenced by Assignment documents recorded on December 22, 1999, at Reel 010472, Frame 0330), is the real party in interest in this appeal.

RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

STATUS OF CLAIMS

The above-identified application was filed with a total of eight (8) claims.

In an Office Action dated September 30, 2002, claims 1-8 were held to be subject to an election of species requirement. In a reply to this Office Action dated October 25, 2002, claims 1-3 and 7 were selected for prosecution on the merits as being directed to the elected species. In a further Office Action dated December 3, 2002, claims 4-6 and 8 were withdrawn from consideration, and claims 1-3 and 7 were rejected. In a Reply and Amendment dated March 3, 2002, claims 4-6 and 8 were cancelled without prejudice.

Claims 1-3 and 7 were rejected in a final Office Action dated April 10, 2003. In a Reply to the final Office Action, dated July 9, 2003, amendments were proposed to claims 1 and 7. The rejection of claims 1-3 and 7 was repeated in an Advisory Action dated July 15, 2003. A Request for Continued Examination was filed on August 7, 2003, to effect entry of the claim amendments proposed in the Reply dated July 9, 2003. Claims 1-3 and 7 were rejected in an Office Action dated August 25, 2003. In a Reply and Amendment dated November 25, 2003, claims 1, 2 and 7 were amended. Claims 1-3 and 7 were rejected in a final Office Action dated December 29, 2003. A Notice of Appeal was filed on March 26, 2004.

Claims 1-3 and 7 are all of the claims which remain pending in this application. Claims 4-6 and 8 have been cancelled. Claims 1-3 and 7 remain under final rejection and are the subject of this appeal.

STATUS OF AMENDMENTS

Amendments to claims 1 and 7 were entered pursuant to the Request for Continued Examination filed on August 7, 2003. Amendments to claims 1, 2 and 7 were presented in the Reply and Amendment dated November 25, 2003. No amendments to the claims have been presented subsequent to the final rejection in the Office Action dated December 29, 2003.

SUMMARY OF THE INVENTION

The present invention, as defined in independent claim 1, is directed to a method for facilitating implementation of an automated system for transacting business (see specification, page 4, line 29, to page 5, line 6; page 5, lines 12-14; and Figure 1, ref. 110). The system has a plurality of users who are subject to predetermined rules governing business conduct (page 6, lines 12-13 and 24-30, and Figure 4, ref. 450).

A user identifier is assigned to each user of the system (page 5, lines 21-25, and Figure 2A, ref. 201). A security profile is prepared corresponding to each identifier; each security profile includes a set of authorized transactions (page 5, line 25, to page 6, line 2, and Figure 2B, ref. 203-204). A list is prepared of pairs of incompatible transactions (that is, transactions which are incompatible if performed by the same user), in accordance with the predetermined rules (page 6, lines 3-20, and Figures 3A-3B, ref. 123-2).

Each security profile is then compared with this list, to identify security profiles including at least one pair of incompatible transactions (page 6, line 31, to page 7, line 11, and Figure 4, ref. 405-406). A report is generated indicating those security profiles which include incompatible transactions and the user identifiers associated with those security profiles (page

7, lines 10-15, and Figure 4, ref. 407, 410). The above-described comparing step and generating step are automated (page 5, lines 9-20; page 7, lines 6-11; and Figure 4).

The salient features of the invention defined by independent claim 1 are that (1) there are predetermined rules governing business conduct; (2) a list is prepared, in accordance with those rules, of pairs of incompatible transactions; (3) user security profiles are compared with this list; and (4) a report is generated indicating those security profiles which include incompatible transactions and the user identifiers associated therewith. The term "incompatible transactions" refers to transactions which, if performed by the same user, would permit misuse of the system or fraud (specification, page 6, lines 15-16).

Claim 2, dependent from claim 1, is directed to a method which further includes the step of storing the security profiles and the list of pairs of incompatible transactions in a computer-readable storage medium (page 4, line 33, to page 5, line 4, and Figure 1, ref. 120). The method of claim 2 also includes the step of retrieving the security profiles and the list of pairs of incompatible transactions from the computer-readable storage medium (page 5, lines 4-6; page 7, lines 6-10, and Figure 4, ref. 404). As taught in the specification, the storing step and retrieving step are automated.

Claim 3, dependent from claim 1, is directed to a method which further includes the step of modifying at least one of (a) a security profile including a pair of incompatible transactions, and (b) the list of pairs of incompatible transactions, so that the security profile after modification does not include a pair of incompatible transactions (page 7, lines 15-17, and Figure 4, ref. 411). The method of claim 3 also includes the step of generating a report indicating the modification (page 8, lines 26-31, and Figure 4, ref. 601).

Claim 7 is directed to a computer-readable storage medium (page 5, lines 9-11, and Figure 1) having stored therein instructions for performing an automated method for facilitating implementation of an automated system for transacting business. The users of this system each have a user identifier, and are subject to predetermined rules governing business conduct. A security profile (including a set of authorized transactions) associated with each user identifier is retrieved. A list of pairs of transactions (incompatible if performed by the same user) is also retrieved; this list is prepared in accordance with the predetermined rules.

Each security profile is then compared with this list, to identify security profiles including at least one pair of incompatible transactions. A report is then generated which indicates those security profiles which include incompatible transactions and the user identifiers associated with those security profiles. (See specification, page 7, lines 6-15, and Figure 4.)

ISSUE

Whether claims 1-3 and 7 were properly rejected under 35 U.S.C. § 103(a) as unpatentable over Miller (U.S. Pat. No. 6,101,481) in view of Rassman et al. (U.S. Pat. No. 4,937,743) and Official Notice as set forth in page 3 of the Office Action dated December 29, 2003.

GROUPING OF CLAIMS

The claims do not stand or fall together.

Arguments will be presented in the Arguments section of this Appeal Brief for the separate patentability of the following groups of claims:

Group I: Claims 1-3.

Group II: Claim 7.

ARGUMENT

A. The references

Miller is understood to disclose a task management system for tasks of a project in which a task controller is identified as responsible for a given task, and details of the task are shared between two or more people. The task details are often structured and presented in a chart such as a Gantt chart (see col. 7, lines 33-36, and Figure 1). The system of Miller identifies personnel to be assigned to a particular task, and allocates sole responsibility for each task to a task controller. Task details are transferred to and between personnel so that details relevant to a task are provided to and accessible by only the task controller and the assigned personnel (col.2, lines 1-9; col. 3, lines 53-65). According to Miller, this system is structured in accordance with "core business rules" regarding task execution and management (col. 8, lines 1-10).

Miller teaches (col. 11, lines 65-67) that system security may require that only those people who are directly involved in a task should see the details of that task. In the system of Miller, those not involved in a given task may be "locked out"–not permitted to see the details of a task (col.12, lines 3-9).

Rassman et al. is understood to disclose a system and method for scheduling, monitoring and managing a plurality of resources using a computer system. In the resource management system of Rassman et al., a database is provided having information about the resources, and availability of the resources is monitored and displayed as a function of time. Rassman et al. suggests (col. 3, lines 2-21) that the system may be used to automatically adjust schedules in the event of scheduling conflicts. It should be noted that for Rassman et al., the term "conflicts" is used to indicate a lack or imbalance of resources, as opposed to misuse of the system or fraud.

B. Examiner's statements and Official Notice

(1) Statements regarding claims 1-3

The Examiner states that Miller discloses a method including the steps of assigning a user identifier, preparing a security profile where each profile includes a set of authorized transactions, and allowing certain transactions to be locked out.

The Examiner notes that Miller lacks specific teaching regarding the steps of preparing a list of incompatible transactions where the users are subject to predetermined rules regarding business conduct; comparing each security profile with the list to identify the security profiles with incompatible transactions; and generating a report.

The Examiner states that Rassman et al. teaches a computer system whereby conflicts involving resources are identified/listed, personnel are notified of such conflicts, and schedules for various resources are automatically adjusted to resolve the conflict. The Examiner maintains that it would have been obvious to modify Miller to include the teachings of Rassman et al. to arrive at a system as in independent claim 1.

Furthermore, the Examiner takes Official Notice that it is well known in business to create a list of incompatible transactions for certain employees, and to monitor employees and their transactions to determine whether incompatible transactions have been performed by a given employee.

(2) Statements regarding claim 7

The Appellants wish to point out that the Examiner has made no statements regarding the separate patentability of independent claim 7.

C. Appellants' arguments

(1) Requirements of a rejection under 35 U.S.C. § 103(a)

It is well settled that to establish a prima facie case of obviousness, there must be some suggestion or motivation to combine the teachings of the references, and that the references when combined must teach or suggest all the claim limitations. MPEP § 2143. The combination of Miller and Rassman et al., taking into account the Examiner's statement of Official Notice, must therefore teach or suggest all of the above-noted features of independent claim 1.

Furthermore, the prior art must suggest the desirability of the claimed invention. MPEP § 2143.01.

The combination of Miller and Rassman et al., taking into account the Examiner's statement of Official Notice, must likewise teach or suggest all of the features of independent claim 7.

(2) Claim 1 sets forth specific limitations, regarding incompatible transactions, the predetermined rules, and comparisons with the security profiles, that are not taught or suggested in either of the cited references

As noted above, Miller lacks a teaching regarding the steps of preparing a list of incompatible transactions where the users are subject to predetermined rules regarding business conduct; comparing each security profile with the list to identify the security profiles with incompatible transactions; and generating a report. In particular, it should be noted that the "core business rules" cited by Miller relate to how task detail is controlled and viewed by persons participating in a task, and not to rules governing business conduct. Miller does not envision a system in which a given user should not be permitted to perform certain tasks in view of such business conduct rules.

Similarly, Rassman et al. does not teach or suggest that tasks or transactions may be conflicting or incompatible because of rules governing business conduct. Rassman et al. also does not suggest that a user of the system might have a security profile including a set of authorized transactions. Furthermore, Rassman et al. does not suggest identifying security profiles having incompatible transactions (i.e. incompatible with rules governing business conduct). In this regard, it again should be noted that for Rassman et al., the term "conflicts" is used to indicate a lack or imbalance of resources, as opposed to misuse of the system or fraud.

(3) There is no suggestion or motivation to combine the references, and such a combination would not yield the invention defined in claim 1

The Appellants wish to point out that the system and method of Miller et al. is directed to assigning personnel for the efficient performance of tasks. The system of Rassman et al., on the other hand, is concerned with scheduling the use of various resources, as opposed to performing transactions. One following the teaching of Miller would treat a resource scheduling problem (as dealt with in Rassman et al.) as a task detail, and use the system of Rassman et al. as a tool for performing a task. Unlike Rassman et al., which views people as resources to be scheduled (Rassman et al., col. 5, lines 24-30), Miller teaches that it is not desirable for people to be viewed as resources (Miller, col. 12, lines 14-18). Miller thus does not offer motivation to be combined with Rassman et al. in the manner suggested by the Examiner.

A combination of Miller and Rassman et al. would at best yield a system in which users would be delegated tasks or assigned to teams for performing tasks, and in which those users could monitor the availability of various resources and coordinate their use. In the cited references, the question of whether a given user should perform a given transaction is a matter of whether the user has been assigned a task (Miller) or a matter of whether appropriate resources are available (Rassman et al.). Neither of the references, considered alone or in combination, suggests preparing a list of incompatible transactions in accordance with

predetermined rules governing business conduct, as in the present invention. It follows that neither reference (nor a combination thereof) suggests comparing such a list with a security profile, or generating a report indicating those security profiles which include incompatible transactions. Furthermore, the cited references do not suggest that the comparing and generating steps are automated, as in the present invention.

With regard to the Examiner's Official Notice, the Appellants acknowledge that it is well known for an organization to have "Business Conduct Guidelines" (see specification, page 6, lines 12-13). A list of incompatible transactions may indeed be developed manually from those guidelines (specification, page 6, lines 11-16). The applicants wish to point out that in the present invention, there is an automated process for comparing users' security profiles with that list, to identify security profiles including incompatible transactions, and for generating a report indicating those security profiles which include incompatible transactions. Stated another way, the present invention permits the business conduct guidelines to be implemented in an automated environment. It is respectfully submitted that this would not have been obvious from the non-automated development of those guidelines, or from the manual development of the list of incompatible transactions.

The Examiner suggests that, once the business conduct guidelines and the list of incompatible transactions are developed, it would be obvious to monitor employee compliance therewith. It is not obvious, however, how this may be done in the environment of an automated system for transacting business. It is the nature of such systems that the transactions are performed using computer systems, so that no physical or clearly visible trail leads back to the employee performing the transaction. The present invention addresses this problem by a preparing security profile for each system user and comparing each security profile with the list of incompatible transactions, to identify security profiles including at least one pair of incompatible transactions.

With regard to a combination of the cited references in light of the Official Notice, the Appellants wish to point out that neither of the cited references suggests preparing a list of incompatible transactions in accordance with predetermined rules governing business conduct, as in the present invention. In taking Official Notice, the Examiner evidently suggests that it is

obvious to apply the problem of incompatible transactions to the cited references; for example, to read "conflict" in Rassman et al. as including incompatible transactions. However, as noted above, Miller does not address the problem of a given user being responsible for incompatible tasks, while Rassman et al. is concerned with scheduling and managing resources, and not with avoiding misuse or fraud involving those resources. Accordingly, the prior art does not provide the necessary motivation to include business conduct guidelines or comparison of security profiles with lists of incompatible transactions, as in the present invention. The prior art therefore does not suggest the desirability of the invention, so that the present invention would not have been obvious therefrom. MPEP § 2143.01.

(4) Claim 7 sets forth specific limitations, regarding incompatible transactions, the predetermined rules, and comparisons with the security profiles, that are not taught or suggested in either of the cited references

The present invention, as defined in claim 7, is directed to a computer-readable storage medium having instructions for performing an automated method. The Miller and Rassman et al. references both describe systems which lend themselves to automation. However, as discussed above, neither reference suggests an automated process involving retrieving a list of pairs of incompatible transactions, where the list is prepared in accordance with predetermined rules governing business conduct.

(5) There is no suggestion or motivation to combine the references, and such a combination would not yield the invention defined in claim 7

As discussed above with regard to claim 1, Miller does not envision a system in which a given user should not be permitted to perform certain tasks in view of predetermined business conduct rules. In addition, Rassman et al. does not teach or suggest that tasks or transactions may be conflicting or incompatible because of rules governing business conduct. Rassman et al. also does not suggest that a user of the system might have a security profile including a set

of authorized transactions. Furthermore, a combination of the references would at best yield an automated system for assigning users to tasks, and wherein the users could monitor the availability of various resources and coordinate their use. The references (either alone or in combination) thus do not suggest an automated method as recited in claim 7. The Examiner takes Official Notice that the problem of incompatible or unauthorized transactions is well known; however, an automated solution to this problem is not presented or suggested in either of the references, or by a combination thereof.

(6) Conclusion

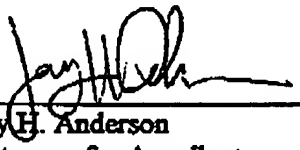
In view of the foregoing, it is respectfully submitted that a prima facie case of obviousness has not been established with regard to the present invention. Accordingly, withdrawal of the rejection under 35 U.S.C. § 103(a) is respectfully requested.

COPY OF CLAIMS

A copy of the claims involved in this appeal appears in the Appendix.

The Appellants' undersigned attorney may be reached by telephone at (845) 894-3667. All correspondence should continue to be directed to the below listed address.

Respectfully submitted,



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APPENDIX

1. A method for facilitating implementation of an automated system for transacting business, the system having a plurality of users, the users being subject to predetermined rules governing business conduct, the method comprising the steps of:

assigning a user identifier to each user of the system;

preparing a security profile corresponding to each identifier, each security profile including a set of authorized transactions;

preparing a list of pairs of incompatible transactions if performed by the same user in accordance with said predetermined rules;

comparing each security profile with said list, to identify security profiles including at least one pair of incompatible transactions; and

generating a report indicating those security profiles which include incompatible transactions and the user identifiers associated with those security profiles,

wherein said comparing step and said generating step are automated.

2. A method according to claim 1, further comprising the steps of:

after said preparing steps, storing the security profiles and the list of pairs of incompatible transactions in a computer-readable storage medium; and

retrieving the security profiles and the list of pairs of incompatible transactions from the computer-readable storage medium,

wherein said storing step and said retrieving step are automated.

3. A method according to claim 1, further comprising the steps of:

modifying at least one of

(a) a security profile including a pair of incompatible transactions, and

(b) said list of pairs of incompatible transactions, so that said security profile after modification does not include a pair of incompatible transactions; and

generating a report indicating the modification made in said modifying step.

7. A computer-readable storage medium having stored therein instructions for performing an automated method for facilitating implementation of an automated system for transacting business, the system having a plurality of users each having a user identifier, the users being subject to predetermined rules governing business conduct, the method comprising the steps of:

retrieving a security profile associated with each user identifier, the security profile including a set of authorized transactions;

retrieving a list of pairs of incompatible transactions if performed by the same user, where said list is prepared in accordance with said predetermined rules;

comparing each security profile with said list, to identify security profiles including at least one pair of incompatible transactions; and

generating a report indicating those security profiles which include incompatible transactions and the user identifiers associated with those security profiles.